



## **Medway Local Plan - Waste Evidence Base**

Medway Waste Needs Assessment 2024 Update

Medway Management Requirements

Report 7 - Medway Management Requirements

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## Executive Summary

This report presents the outcomes arising from the Waste Needs Assessment (WNA) update exercise undertaken by BPP Consulting in 2024 using the latest available data (principally 2022 Waste Data Interrogator). The WNA was completed to update the evidence base supporting the Waste Chapter of the Medway Local Plan.

The WNA identifies the need for additional waste management capacity in Medway by quantifying and characterising the principal waste streams arising in the Plan Area and producing forecasts/estimates of the amount of waste that needs to be managed over the Plan period, whilst taking into account the potential contribution of the existing available waste management capacity within Medway.

The WNA found that a total of just under half a million tonnes of waste arose within Medway in 2022.

Medway has a range of intermediate waste management facilities including the following:

- Waste recycling and processing sites;
- Waste transfer stations (WTS);
- Recycled aggregate facilities;
- In vessel composting (IVC); and
- Metal Recycling Sites (MRS).

In 2022, there were 19 operational permitted intermediate waste management facilities in Medway, managing c708,500 tonnes of waste arising from within and beyond Medway.

Medway also has a number of final fate facilities including:

- Inert Landfill; and
- Recovery to Land.

In 2022, there were 3 inert landfills offering management capacity of c2,881,000 tonnes of inert waste and 1 'other recovery' facility offering c392,000 tonnes non-inert waste management capacity.

The WNA found that there appears to be sufficient existing consented capacity to meet requirements for recycling/ composting capacity and 'other recovery' as well as inert waste management. The only predicted shortfall in management capacity relates to the disposal of non-inert waste by landfill.

Addressing the shortfall over the Plan period will rely on utilisation of non-inert waste landfill capacity available in adjacent or nearby Plan areas. This approach is consistent with initial findings which show that capacity is available in proximate (including neighbouring) areas. It is recommended that findings regarding the availability of capacity elsewhere be verified through direct engagement with relevant host WPAs to ensure compliance with the Duty to Cooperate.

## Abbreviations and Glossary of Terms

### Abbreviations

AD	Anaerobic Digestion
C & I	Commercial & Industrial Waste
C, D & E / CDEW	Construction, Demolition & Excavation Waste
DEFRA	Department for Environment, Food and Rural Affairs
DMR	Dry Mixed Recyclables
EA	Environment Agency
EfW	Energy from Waste
EWC	European Waste Catalogue
hh	Household (waste)
HWRCs	Household Waste Recycling Centres
LACW	Local Authority Collected Waste
MRF	Material Recycling Facility
MRS	Metal Recycling Site
RAF	Recycled Aggregate Facilities
RDF	Refuse Derived Fuel
WDF	WasteDataFlow
WDI	Waste Data Interrogator
WNA	Waste Needs Assessment
WPA	Waste Planning Authority
WTS	Waste Transfer Station

**Glossary of Terms**

<b>Agricultural Waste</b>	Waste produced on a 'farm' in the course of 'farming'. Agricultural waste takes both 'natural' (or organic) and 'non-natural' forms e.g. plastics.
<b>Anaerobic Digestion</b>	A process to manage organic matter including green waste and food waste broken down by bacteria in the absence of air, producing a gas (biogas) and nutrient rich solid or liquid (digestate). The biogas can be used to generate energy either in a furnace, gas engine, turbine or to power vehicles, and digestate can be applied to land as a fertiliser. Classed as 'Other Recovery' but counted towards composting.
<b>Biodegradable waste/ biowaste</b>	Waste that can break down over time due to natural biological action/processes, such as food, garden waste and paper.
<b>Commercial Waste</b>	Waste arising from premises which are used wholly or mainly for trade, business, sport, recreation or entertainment, excluding local authority collected and industrial waste.
<b>Commingled collection</b>	Refers to a system where dry mixed recyclables are collected together for subsequent separation rather than separately collected at source.
<b>Construction and Demolition Waste</b>	Waste arising from construction and demolition activities, including excavation during construction, mainly consisting of inert materials such as soils, stone, concrete, and brick. This waste stream also contains non-inert elements such as wood, metals, plastics, cardboard and plasterboard.
<b>DEFRA</b>	The UK Government department responsible for developing national waste management policy.
<b>Dry mixed recyclables</b>	Widely recycled materials that are collected together (commingled) for subsequent separation.
<b>Energy from Waste</b>	The conversion of the calorific value of waste into energy, normally heat and/or electricity, through applying thermal treatment of some sort. May also include the production of gas that can be used to generate energy.
<b>Environment Agency</b>	The body responsible for the regulation of waste management activities through issuing Environmental Permits to control activities that handle or produce waste. It also provides up-to-date information on waste management matters and deals with other matters such as water issues including flood protection advice.
<b>Exemptions</b>	Certain activities exempt from the need to obtain an Environmental Permit. Each exemption has specific limits and conditions that must be complied with to remain valid. Exemptions must be registered with the Environment Agency. Each registration lasts 3 years.
<b>Green waste</b>	Biodegradable plant waste from gardens and parks such as grass or flower cuttings and hedge trimmings, from domestic and commercial sources suitable for composting.
<b>Hazardous Waste</b>	Waste requiring special management under the Hazardous Waste Regulations 2005 due to it posing potential risk to public health or the environment (when improperly treated, stored, transported or disposed). This can be due to the quantity, concentration, or its characteristics.
<b>Household Waste</b>	Waste from households collected through kerbside rounds, bulky items collected from households and waste delivered by householders to household waste recycling centres and "bring recycling sites" along with waste from street sweepings, and public litter bins. The main component of Local Authority Collected Waste.
<b>Household Waste Recycling Centres</b>	A facility that is available to the public to deposit waste not collected through kerbside collection (also known as a civic amenity site).

<b>Incineration</b>	The controlled combustion of waste. Energy may also be recovered in the form of heat (see Energy from Waste). Classed as disposal alongside landfill unless plants meet a minimum energy efficiency performance threshold.
<b>Industrial Waste</b>	Waste arising from any factory and from any premises occupied by an industry (excluding mines and quarries).
<b>Landfill (including land raising)</b>	The permanent disposal of waste to land, by the filling of voids or similar features, or the construction of landforms above ground level (land-raising).
<b>Landfill Directive</b>	Retained European Union legislation restricting the landfilling of biodegradable municipal waste and requiring pre treatment of all waste destined to be landfilled and separate disposal of hazardous, and non hazardous and inert wastes.
<b>Materials Recycling Facility (MRF)</b>	A facility for sorting recyclable materials from the incoming waste stream.
<b>Materials Facility</b>	Facility receiving specified waste types for recycling subject to input and output sampling and reporting requirements under <a href="#">The Environmental Permitting (England and Wales) (Amendment) Regulations 2023</a> .
<b>Mining Waste</b>	Waste from extractive operations (i.e. waste from extraction and processing of mineral resources) including materials that must be removed to gain access to mineral resources, such as topsoil, overburden and waste rock, as well as tailings remaining after minerals have been largely extracted from the ore. Management subject to control through retained EU Directive 2006/21/EC.
<b>Non Hazardous Landfill</b>	A landfill permitted to accept non-inert (biodegradable) wastes e.g. municipal and commercial and industrial waste and other non-hazardous (including inert) wastes. May only accept hazardous waste if a special cell is constructed.
<b>Other Recovery</b>	Subjecting waste to processes that recover value by means other than recycling and composting – mainly thermal treatment to recover energy.
<b>Recovery</b>	Subjecting waste to processes that recover value including recycling, composting or thermal treatment to recover energy.
<b>Recycled Aggregate Facilities</b>	Sites that produce recycled aggregate from incoming C, D & E waste.
<b>Recycling</b>	The separation and aggregation of materials extracted from the waste stream for reprocessing either into the same product or a different one.
<b>Refuse Derived Fuel</b>	A fuel produced to a contract specification by processing the combustible fraction of waste.
<b>Residual Waste</b>	Waste remaining after materials for re-use, recycling and composting/organic waste treatment e.g. anaerobic digestion have been removed.
<b>The Plan Area</b>	The area subject to the Local Plan to which this study relates; in this case the borough of Medway.
<b>Waste Local Plan</b>	A statutory development plan prepared (or saved) by a waste planning authority setting out policies in relation to the management of waste arising within its area and provision of development to manage waste arising within that area.
<b>Waste Planning Authority (WPA)</b>	The local authority responsible for waste development planning and control; in this case Medway Council.
<b>Waste Transfer Station</b>	A site to which waste is delivered for bulking prior to transfer to another place for further processing or disposal.



## 1. Introduction

- 1.1 This report presents the main outcomes of a comprehensive update of the Waste Needs Assessment (WNA) exercise undertaken by BPP Consulting to support the Waste Chapter of the Medway Local Plan. The WNA involves establishing future waste management requirements and estimating whether existing capacity will be sufficient to meet these needs or whether additional capacity needs to be planned for. The WNA quantifies and characterises the principal waste streams arising in the Plan Area and produces forecasts/estimates of the amount of waste that needs to be managed over the Plan period, whilst taking into account the contribution of the consented and permitted waste management capacity.
- 1.2 This overview report draws on the findings in the following standalone topic reports:
1. Local Authority Collected Waste;
  2. Commercial & Industrial Waste;
  3. Construction, Demolition & Excavation Waste;
  4. Hazardous Waste;
  5. Scoping Review of Other Waste Streams<sup>1</sup>; and,
  6. Review of Strategic Waste Flows.
- 1.3 This work is undertaken in the context of the National Planning Policy for Waste (NPPW)<sup>2</sup> and the national Planning Practice Guidance<sup>3</sup> (nPPG), which expects that:
- "Planned provision of new capacity and its spatial distribution should be based on robust analysis of best available data."* (nPPG Para 035).
- 1.4 To achieve this the following steps have been followed for each of the main waste streams:
1. Scope the key waste streams to be targeted for assessment;
  2. Generate robust baseline waste arisings values;
  3. Generate realistic forecasts of future waste arisings;
  4. Define appropriate (relevant to the Plan area) targets for the management of each waste stream (to ensure that waste is managed in accordance with the waste hierarchy);
  5. Assess current consented management capacity in Medway;
  6. Quantify future capacity needs accounting for cross boundary movements of waste; and,
  7. Establish any associated future gaps in waste management capacity.

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<sup>1</sup> BPP Consulting. Review of Management Requirements for 'Other' Waste Generated in Medway This concluded that the capacity needs of these streams need not be considered further in this WNA.

<sup>2</sup> <https://www.gov.uk/government/publications/national-planning-policy-for-waste>

<sup>3</sup> <http://planningguidance.planningportal.gov.uk/blog/guidance/waste/>

## 2. Principal Data Sources

2.1 The principal sources used to generate the underlying data for the WNA are set out below.

### Waste Data Interrogator

2.2 Operators of all sites subject to environmental permits relating to the management of waste in England are required to submit returns to the Environment Agency setting out the quantities, types and origin of waste received and, where applicable, destination of waste removed. These returns are collated by the Environment Agency and reported in a national dataset known as the Waste Data Interrogator (WDI). The WDI is released approximately nine months after the end of the calendar year to which the data relates. The 2022 WDI (version 2 released January 2024), consisting of data for the calendar year 2022, is the most current version available at the time of writing.

### Hazardous Waste Interrogator

2.3 In the UK producers and managers of hazardous waste must notify the environmental regulator for the country in which they are located (in England this is the Environment Agency) of movements of waste classed as hazardous. This data is collated and reported in the Hazardous Waste Interrogator (HWI). Data is currently reported down to the receiving local authority area (defined by county council or unitary authority) rather than by receiving site. The latest HWI (HWI 2022) was released in January 2024 and reports data for 2022.

### WasteDataFlow

2.4 WasteDataFlow (WDF) is a web-based data entry portal used by local authorities in England to report on the management of Local Authority Collected Waste (LACW) in their area to central Government (DEFRA) on a quarterly basis. Following independent quality checking the data is used to report on national LACW recycling and landfill diversion performance. However, due to reporting being by financial rather than calendar year, data covering all four quarters of 2022 were not available to download at the time of writing this report. Therefore, the WDI was compared to a dataset provided by Medway WDA<sup>4</sup>.

### Register of activity exempt from the need for an Environmental Permit

2.5 To reduce the regulatory burden on certain low risk waste management activity, a range of activities are exempt from permitting. Exemption from permitting is gained by simple registration of the activity on the Environment Agency website. The activities range from occasional bonfires and the deposit of certain specified waste to confer agricultural benefit. A register is maintained of all registered exemptions which is available to download online. The dataset used to inform this project covered the period 1 January 2020 through to 31 December 2022 as exemptions expire after 3 years. The listing of registered U1 exemptions covering the use of C, D & E waste for construction was accessed to inform the C, D & E waste baseline.

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<sup>4</sup> This was supplemented by cross referencing entries in the WDF 2021 to ensure all deductions were made.

## Environment Agency Remaining Landfill Void

2.6 The Environment Agency provides an annual listing of remaining void at landfills permitted under the Environmental Permitting Regulations. The dataset used to inform this project covered the period to the end of 2022. It does not account for void that might be used for landfill that had not, at that date, been granted an environmental permit such as void consented for or in the process of being created through mineral working.

## Scrap Metal Dealers Licence Register

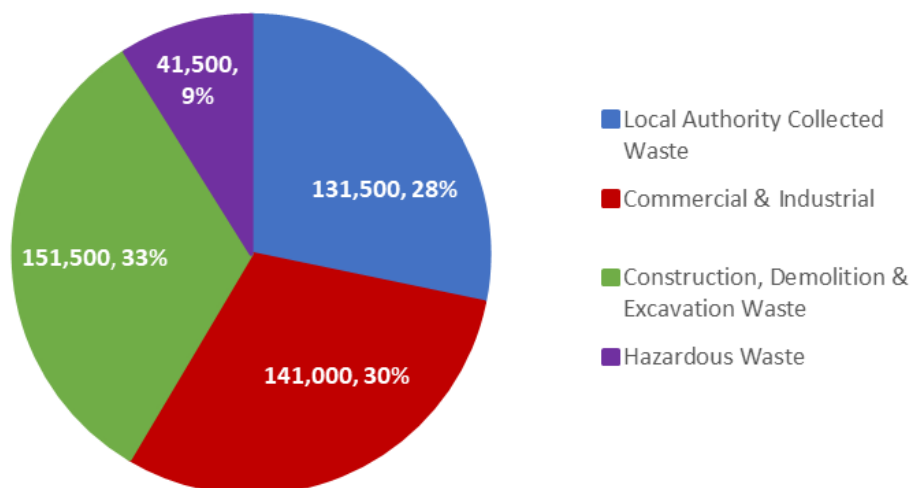
2.7 To trade/deal in scrap metals, operators are required by law to register with their local authority, either as a site-based dealer or as a mobile (itinerant) collector. The Environment Agency hosts a national register of all licensed dealers via its online public register. This can be used as a source to identify site-based metal recycling sites that may not be registered directly with the Environment Agency.

## Quantities of Waste Produced in Medway

2.8 The WNA has found that just under 0.5 million tonnes (c465,500 tonnes) of waste arose within Medway in 2022. The principal components in order of the reports completed were:

- Local Authority Collected Waste                      c131,500 tonnes
- Commercial & Industrial Waste                              c141,000 tonnes
- Construction, Demolition & Excavation              c151,500 tonnes
- Hazardous Waste    c41,500 tonnes

2.9 The profile of waste production is illustrated in Figure 1 below:



**Figure 1: Quantities of Principal Waste Types Arising in Medway 2022 (tonnes)**

### 3. Capacity Assessment Overview

- 3.1 The capacity of waste management facilities in Medway has been established using planning consents combined with a review of data for waste inputs over the past five-years as reported through the annual versions of the WDI (2018-2022).
- 3.2 Examination of these datasets indicates that the following capacity types exist within the Plan area:
- Waste transfer/treatment capacity;
  - Metal Recycling Sites (MRS);
  - Organic waste treatment (e.g. In vessel composting (IVC));
  - Recycling including Recycled Aggregate Facilities (RAF);
  - ‘Other recovery’; and
  - Inert landfill.
- 3.3 The presence of facilities where waste recycle is reprocessed into product, such as glass-furnaces and paper mills, was not accounted for in the assessment of capacity as they are considered to be industrial activity rather than waste management development which is generally regarded as sui generis - a use in its own right.

#### Sources of Facility Capacity Data

- 3.4 Facility capacity data has been collated from data presented in the WDI compiled by the Environment Agency over the most recent 5-year period 2018-2022 (See Appendix 1). The 5-year peak input was then calculated on a site-by-site basis. Any sites that did not report any inputs in the most recent 3-years have been excluded and the site capacity has not been counted for the purposes of this WNA. The capacity of any sites that managed a significant amount of hazardous waste (greater than 20% of the total peak amount of waste managed) was deducted from the preferred capacity value to ensure that hazardous waste management capacity provided by these sites counted within the hazardous waste assessment, was not compromised.
- 3.5 To allow for the possibility that the peak input value is not an absolute limit, a 15% 'freeboard' was added to the peak input values shown in the WDI for intermediate sites. This adjustment is intended to reflect the maximum realistic throughput of a facility, as opposed to actual throughput which may be constrained by such things as market conditions.
- 3.6 Where applicable, site capacity based on the planning consents issued by Medway was compared to the peak value +15%. Consented capacity was used in preference to the peak value +15%, unless the peak value +15% was significantly (+/- 50%) more or less than the consented capacity, in which case, the peak value +15% was used as it is considered to provide a more accurate representation of the true operational capacity.
- 3.7 It should be noted that any assessment of the total waste management capacity of a Plan area only presents a snapshot at a particular point in time as the number of waste management facilities in existence and in operation is in a constant state of flux, as sites close and new sites come on stream.

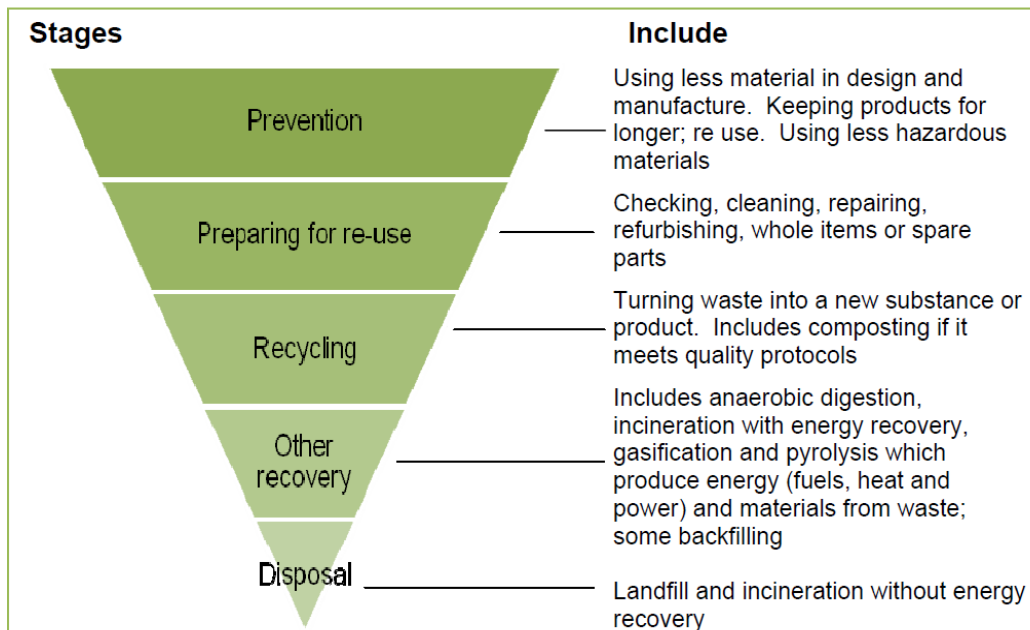
**Assumed void space to tonne conversion factors**

- 3.8 Where waste is destined for landfill, it is necessary to account for the fact that mass does not necessarily equal volume, that is to say, 1 tonne of waste may not occupy 1 m<sup>3</sup> of capacity. Estimates of landfill void requirement therefore need to account for the density of the waste material under consideration.
- 3.9 For the purposes of this WNA it has been assumed that 1.5 tonnes of inert waste can be accommodated within one cubic metre of void, while a single tonne of non-inert residual waste may be accommodated within one cubic metre of void. This latter value is greater than that applied historically, as very little 'black bag' waste is now sent direct to landfill, most, if not all, will have undergone some pre-treatment (as required by the Landfill Directive), making it significantly more dense than untreated mixed municipal (and similar wastes).

## 4. Capacity in Medway by Management Method

### Types of Waste Management Capacity

4.1 The waste hierarchy was originally set out in Article 4 of the revised Waste Framework (Directive 2008/98/EC) and compliance with it has been made obligatory in England under *The Waste (England and Wales) (Amendment) Regulations 2012*<sup>5</sup>. The hierarchy sets an order of preference by which waste is to be managed, starting with the preferred option of prevention (Tier 1), followed by preparing waste for re-use (Tier 2), recycling/composting (Tier 3) and 'other recovery' (Tier 4), with disposal (Tier 5) (such as landfill or incineration without energy recovery to R1) as the least favoured as shown in Figure 2.



**Figure 2: Diagrammatic representation of the Waste Hierarchy**

4.2 It should be noted that under the retained revised Waste Framework Directive<sup>6</sup>, the term 'recovery' covers any operation that doesn't involve disposal and hence recycling, composting and operations involving the harnessing of the energy value of waste are all classed as 'recovery' operations. To distinguish between operations classed in the recycling tier of the waste hierarchy, the term 'other recovery' is used to cover operations that involve something other than recycling and/or composting. This includes Energy from Waste (EfW) plants, where waste is burnt to produce power and/or heat, providing they meet a minimum performance standard set out in a specified efficiency formula referred to as the 'R1 formula'.

<sup>5</sup> Guidance on applying the Waste Hierarchy DEFRA June 2011  
[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/69403/pb13530-waste-hierarchy-guidance.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69403/pb13530-waste-hierarchy-guidance.pdf)

<sup>6</sup> As transposed by The Waste (England and Wales) Regulations 2011 - S.I. 2011/988

- 4.3 Managing waste in accordance with the waste hierarchy should generally lead to the most resource efficient and environmentally sound approach to managing waste. However, because the “best” choice can be influenced by the fact that different waste streams have different characteristics (such as calorific value), in some cases departing from the waste hierarchy can lead to better environmental outcomes. When considering whether a departure from the waste hierarchy would be justified, decision-makers are to base their choices on the findings of a Life Cycle Assessments (LCAs)<sup>7</sup>.
- 4.4 **Recycling** is taken to include any activity that either results in the separation of materials suitable for reuse as a raw material and/or its actual conversion to a product (reprocessing). For the purposes of this capacity assessment exercise, recycling capacity does not include reprocessing capacity where a material such as waste paper is converted into a product such as newsprint, as that is a manufacturing process. Plants or facilities where such processes take place are generally not considered to be development undertaken for the purposes of managing waste and so do not usually require planning consent from the WPA. Recycling capacity can take various forms from depots where source separated recyclable materials are bulked up for onward recycling, to facilities where materials may be separated out on delivery e.g. Household Waste Recycling Centres (HWRCs), through to fully fledged Material Recycling Facilities where complete loads of waste are passed through a processing line to extract and separate materials for recycling.
- 4.5 From October 2024<sup>8</sup>, recycling facilities handling the following materials will be classed as a 'materials facility':
- Waste that is similar to household waste in nature and composition i.e. non-household municipal waste;
  - separately collected waste for the purpose for reuse or recycling;
  - waste of a single kind of material or multiple materials mixed together; and
  - waste that contains one or more material types including glass, metal, paper, card, plastic, or fibre-based composite materials.
- 4.6 The new requirements are intended to ensure the effectiveness of sorting offered by such facilities is assessed through the submission of data to the Environment Agency on the quality of inputs and outputs and the resulting amount of residues not recycled. Once in effect, this new regulation may act as an incentive for such facilities to strive for improved recycling rates which could affect facilities in Medway.
- 4.7 **Composting** involves the decomposition of biodegradable and putrescible matter by aerobic processes. Composting facilities come in two principal forms, open-air (windrow), or enclosed (In Vessel Composting (IVC)). Open-air composting is only suitable for treating biodegradable waste such as green waste and some cardboard, while IVC can also process

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<sup>7</sup> The way in which the findings of LCAs are relevant to decision making on the application of the hierarchy to waste management has been set out by Government in Applying the Waste Hierarchy: evidence summary DEFRA June 2011 [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/69403/pb13530-waste-hierarchy-guidance.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69403/pb13530-waste-hierarchy-guidance.pdf)

<sup>8</sup> [The Environmental Permitting \(England and Wales\) \(Amendment\) Regulations 2023](#)

putrescible wastes, such as kitchen wastes, due to the requirements of the Animal By-Products Regulations.

- 4.8 **Anaerobic Digestion (AD)** involves the decomposition of biodegradable and putrescible matter within a vessel to produce biogas. While it is classified in the waste hierarchy as a form of 'other recovery' (Tier 4), life cycle assessment has demonstrated that it is better than composting and other recovery options when it comes to the management of food wastes, and garden waste in some cases. Given that deviation from compliance with the waste hierarchy may be justified by life cycle thinking, it is therefore considered appropriate for AD to be considered alongside composting as an organic waste treatment method that can therefore contribute to meeting recycling/composting targets.
- 4.9 Kitchen and commercial food waste can only be processed in enclosed systems such as in-vessel composting plant (IVC) and AD facilities due to the requirements of the Animal By-Products Regulations.
- 4.10 In this report, 'Recycling/composting' is therefore used as a shorthand term for material recycling and organic waste treatment including AD.

## Recycling Capacity

- 4.11 Table 1 sets out the results of the assessment of recycling capacity in Medway for all non-hazardous waste i.e. inert and non-inert waste.
- 4.12 Sites receiving waste under permits classified as 'treatment' in the WDI have been taken to be offering recycling capacity on the basis that the primary purpose of treating waste is to divert it from landfill (and hence avoid having to pay the active rate of landfill tax), and separating materials for recycling is generally the most cost-effective way of achieving landfill diversion<sup>9</sup>. These are listed in Table 1.
- 4.13 Sites classed as MRF in the WDI have also been included in Table 1. It should be noted that sites classed under the heading 'MRF' in the Agency dataset are not necessarily true MRFs, which are generally considered to be facilities that sort and separate recyclates such as plastics, metals, paper, cardboard, glass collected together (as 'dry mixed recyclables' (DMR)) into the individual material streams for onward reprocessing/recycling.

## Other Recycling Capacity

### Transfer

- 4.14 Historically, transfer stations were facilities where waste received was simply bulked up for onward disposal, hence they were considered not to offer any waste processing capacity. Whilst the WDI 2022 included 7 sites under the transfer site category<sup>10</sup>, closer examination of

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<sup>9</sup> An exception to this is a site known as 'Streetfuel' as the WDI shows the bulk of its outputs went to incineration or landfill. Therefore, this site has been excluded from the recycling capacity assessment. Instead, it has been included under 'other recovery' capacity.

<sup>10</sup> Note that one site has not been included in the capacity assessment as it received less than 100 tonnes in any single year across the 5-year period.



the inputs and fates of the outputs of these sites revealed some separation and processing for recycling takes place at these sites. Of these sites:

- 3 were Household Waste Recycling Centres (HWRCs);
- 2 sites were found to be managing a significant amount of hazardous waste in total (>85%) so have been included in the hazardous waste assessment instead;
- 1 site was found to be a true transfer site so has been included in Table 5; and
- 1 site was found to be undertaking some recycling and so has been included in Table 1 below.

4.15 Analysis of the earlier WDI datasets revealed two additional transfer sites with inputs in 2020: 1 site was found to be producing recycled aggregate so has been included in Table 4 (as this relates to inert C, D & E waste recycling); and the other site was found to now have planning permission for redevelopment to commercial space<sup>11</sup> so has therefore been discounted.

### **Metal Recycling Sites**

4.16 Scrap metal is principally produced from industrial sources along with demolition and construction activity. End of life vehicles (ELVs) are produced from all sources including households. The WDI shows only one metal recycling site (MRS) and 2 ELV depollution sites (authorised treatment facilities ATF) operated under permits in Medway in 2022. As ELVs are classed as hazardous waste until they have been depolluted, the capacities of sites primarily/ exclusively managing ELVs have not been counted towards non-hazardous waste capacity on the basis that they will primarily be managing hazardous waste. This is accounted for in the separate hazardous waste management requirement report.

4.17 Metal recycling sites may also operate under an exemption from environmental permitting known as 'T9' (recovering scrap metal). A search of the Environment Agency register revealed nine such sites registered in Medway in 2022. Further investigation revealed that seven didn't appear to be actually operating, leaving two sites to add under T9 exemption. Examination of the Scrap Metal Dealers Licence Register identified an additional two site-based dealers which were not subject to a permit or T9 exemption but online searches indicated they did appear to be operational. Therefore, four additional MRS have been added<sup>12</sup>. As the sites do not have permits or express planning permission for a waste use, reference was made to the capacity estimates included in the original national Reconcile method for T9 exemptions<sup>13</sup>. This assumed sites operating under a T9 exemption handle up to 2,500 tpa, and so this value has been applied to the four Scrap Metal Dealer sites identified.

4.18 Table 1 also includes the single operational permitted MRS in Medway.

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<sup>11</sup> Permission: MC/23/2680 – Unit 18 Morgans Timber Yard.

<sup>12</sup> All 4 of these appeared to actually be operating as MRS based on a search of GoogleEarth aerial photographs. A search of the Medway Council planning register did not reveal any being subject to planning permission for a metal recycling or waste use.

<sup>13</sup> DEFRA, Commercial and Industrial Waste Survey 2009 Final Report (December 2010).

**Table 1: Recycling Capacity in Medway for non-hazardous waste including MRS**

Site Name	Operator	Principal Waste Type Managed	Site Category as per EA WDI	Consented capacity (tonnes p.a.)	Peak Input +15% tonnes (Appendix 1)	Preferred Value (tonnes p.a.)
Building 63, Chatham Docks	Chatham Freight Station Ltd	CDE		N/A	38,739	38,739
Darnet Yard	Parkes Utilities Surfacing Ltd			N/A	9,371	9,371
Pelican Reach (Plot L) <sup>14</sup>	Viridor Polymer Recycling Ltd	Hhold/Ind/Com	Treatment	N/A	102,467	102,467
Units 127 and 190 Kingsnorth Industrial Estate	Syntech Biofuel Ltd			N/A	364	364
Berth 6, Basin 3	P & D Material Recovery Ltd			280,000	89,380	89,380
Medway WTS <sup>15</sup>	Veolia ES (UK) Ltd	LACW	Transfer	250,000	158,539	250,000
Chatham Docks, Gillingham Gate	Mobile Compactor Services Ltd			8,000	1,818	1,818
Unit B, Whitewall Road Medway Industrial Estate	European Metal Recycling Ltd	Hhold/Ind/Com / CDE	MRS	N/A	10,593	10,593
1 Vicarage Lane, Hoo St Werburgh	Hoo Marina Metals			n/a	2,500	2,500
28 Glencoe Road, Chatham	WB Phillips Metals Ltd			n/a	2,500	2,500
The Woodlands Hempstead Road	Robert Beck And Sons			n/a	2,500	2,500
Unit 6 Shamel Business Centre	Mr Jack Medhurst t/a Medway Metals			n/a	2,500	2,500
<b>Total capacity</b>						<b>512,732</b>

Table 1 shows a total operational recycling capacity in Medway of **c512,500 tpa**.

### Organic Waste Treatment Capacity

4.19 As stated above various types of facility exist to process organic waste including windrow composting, in-vessel composting and anaerobic digestion (AD). Windrow composting is used primarily for the processing of garden and green waste and other vegetation. Kitchen and commercial food waste can only be processed in enclosed systems such as in-vessel composting plant (IVC) and AD facilities to meet the requirements of the Animal By-Products Regulations. Only one such facility was identified as operating or consented in

<sup>14</sup> This is a Plastic Recycling Facility (PRF) that primarily receives sorted plastic waste from other waste management sites. This is confirmed by the majority of inputs being Ch 19, i.e., outputs from another waste management facility.

<sup>15</sup> Whilst this is referred to as a MRF and WTS the data indicates that it is operating as a WTS (as the majority of inputs received are sent on to other sites in an unchanged code/form). The site is facilitating recycling as it is receiving source segregated kerbside collected materials from LACW that go on for recycling primarily. Planning permission was recently granted under MC/20/2055 at a depot site operated by Veolia in Medway for a MRF capable of processing c100,000 tonnes which might replace capacity at the current site. However, it has still to be built out, so this capacity has not been included.

### Medway Local Plan Waste Evidence Base

Medway located at Kingsnorth Works, Kingsnorth Industrial Estate<sup>16</sup>. This is an IVC plant that has a peak input +15% of c32,000 tonnes but has a consented capacity of up to 75,000tpa. Given there is a c80% deviation between the consented capacity and the peak input +15%, the lower value of the peak input +15% has been taken. When combined with the recycling capacity total of c512,500 tpa (see Table 1), this gives a total recycling capacity of c544,500 tpa.

## Household Waste Recycling Centres

4.20 In addition, there are three HWRCs provided by Medway Council operated under contract by Medway Norse Ltd. Their assessed capacities are shown in Table 2.

**Table 2: HWRC Capacity in Medway (tonnes)**

Site Name	Operational Capacity (tonnes p.a.)	Peak Input +15% (Appendix 1)	Preferred Value
Capstone	n/a	11,316	11,316
Cuxton	n/a	14,028	14,028
Hoath Way	15,000	9,241	15,000
<b>Total</b>			<b>40,344</b>

4.21 As virtually all of the inputs segregated on a HWRC site go on for recycling or composting, 100% of the capacity of these sites has been counted as contributing towards recycling capacity. This gives a total for LACW recycling at the HWRCs of c40,500 tonnes, as shown in Table 2.

4.22 When combined with the running total recycling capacity of c544,500 tonnes, this gives a total Plan area combined recycling/ composting capacity of just under c0.6Mtpa as shown in Table 3.

**Table 3: Combined Recycling/ Composting Capacity in Medway**

Capacity Type	Assessed capacity (tpa)
Recycling (All waste types)	512,732
Organic Waste Treatment (C&I)	31,987
HWRC (LACW Recycling)	40,344
<b>Total</b>	<b>585,063</b>

<sup>16</sup> This is a specialist waste management site that predominantly manages sludges, screenings and waste from sewage cleaning.

## Recycled Aggregate Facilities

4.23 There are three sites where inert C, D & E waste is recycled into product such as recycled aggregate and screened soils. Table 4 identifies these sites along with their assessed capacities.

**Table 4: Recycled Aggregate Capacity in Medway (tonnes)**

Site Name	Operator	Operational Capacity (tonnes p.a.)	Peak Input +15% (Appendix 1)	Preferred Value
Isle Of Grain Stone Terminal	Aggregate Industries UK Ltd	750,000	9,211	9,211
Unit 5 Temple Boat Yard	Saward Tipping Services Ltd	n/a	50,071	50,071
Medway Recycling Centre	O C L Regeneration Ltd	40,000	7,205 <sup>17</sup>	40,000
<b>Total</b>				<b>99,282</b>

4.24 Table 4 shows a total assessed recycled aggregate production capacity in Medway of c99,500 tonnes.

## Waste Transfer Capacity

4.25 Given transfer capacity that facilitates recycling by providing bulking capacity is already accounted for as providing recycling capacity in Table 1, waste transfer capacity is taken to refer to the reception and bulking of collected residual wastes destined for its final fate at other facilities. Transfer capacity can be accommodated at dedicated sites or at sites where other waste management activities take place. For example, sites accepting skip waste for recycling may also accept residual C&I waste for disposal or other recovery i.e. incineration.

4.26 The one true transfer station is listed in Table 5 below.

**Table 5: Transfer Capacity in Medway (tonnes)**

Site Name	Operator	Operational Capacity (tonnes p.a.)	Peak Input +15% (Appendix 1)	Preferred Value
Rochester Clinical Waste Treatment Facility	Tradebe Healthcare National Ltd	24,000 <sup>18</sup>	15,942	24,000
<b>Total</b>				<b>24,000</b>

4.27 Table 5 shows that there is c24,000 tonnes of transfer capacity in Medway

<sup>17</sup> WDI only shows the site accepting inputs in 2020, but direct communication with operator indicates this was a temporary anomaly due to Covid and the site is expected to become fully operational in the next year or so.

<sup>18</sup> Max capacity set in bespoke environmental permit: WP3036ZR

## Final Fate Capacity

4.28 The types of facilities explored thus far provide ‘intermediate’ capacity where waste is processed/ sorted before being transported on for management at its final destination, or ‘final fate’ management. This section accounts for the capacity provided by sites where waste actually meets its final fate (other than where waste is converted into useful materials e.g. compost or recycle). This includes:

- landfill;
- recovery to land sites, and,
- ‘other recovery’ facilities

## Landfill Capacity

4.29 There are 3 consented inert landfills in Medway. These are listed in Table 6.

**Table 6: Operational Inert Waste Landfill in Medway**

Site Name	Operator	Permitted void space end of 2022 EA data (m <sup>3</sup> )	End of 2022 capacity (m <sup>3</sup> x 1.5)
Alpha Lake	Brett Aggregates Ltd	1,000,000	1,500,000
Manor Farm Barn Landfill & Recovery Operation	Downland Trading (Kent) Ltd	520,800	781,200
Chalk Lake Landfill <sup>19</sup>	Brett Aggregates Ltd	400,000	600,000
<b>Total</b>		<b>1,920,800</b>	<b>2,881,200</b>

4.30 Table 6 shows that there was c1,921,000m<sup>3</sup> of consented inert landfill void in Medway at the end of 2022 offering c2,881,000 tonnes of inert waste final fate management capacity.

## Recovery to Land Capacity

4.31 The WDI 2022 reports that a single site at Commissioners Road in Medway, permitted by the Environment Agency as a Recovery to Land operation, received waste in 2022. The total ‘void’ offered by this site has previously been assessed to be 463,600m<sup>3</sup>, providing capacity of c695,500 tonnes of inert waste. Deducting the inputs to the site in 2022 (as reported in the WDI) from the previously assessed capacity, leaves a value of c160,000 tonnes of inert waste management capacity remaining. Given the annual inputs as reported in the WDI are in that order, it is assumed that the capacity had been exhausted by the end of 2023, and therefore this has not been counted going forward.

## Other Recovery

4.32 One site at Berth 6 Chatham Dockyard, operated by Streetfuel, primarily receives process residues from other waste management facilities. Analysis of the output data shows the majority goes for onward recovery, therefore the peak inputs +15% of c392,000 tonnes has been counted as ‘other recovery’ capacity<sup>20</sup>.

<sup>19</sup> Note that this landfill is yet to commence operation with no inputs reported to the site in the WDI.

<sup>20</sup> The site operates under an Environmental Permit for the physical treatment of waste..

4.33 Planning permission has been granted for an Energy Centre as part of the ‘Medway One’ redevelopment of the old Kingsnorth power station site which could accept up to c200,000tpa of refuse derived fuel (RDF) or solid recovered fuel (SRF). The facility would only be built out as part of the wider development of the Medway One site and therefore this capacity has not been counted as delivery is considered to be uncertain.

**Conclusion**

4.34 There is a total final fate management capacity for the permanent deposit to land of inert waste in Medway of c2.88 million tonnes.

4.35 In addition, it is estimated that there is c392,000 tonnes of ‘other recovery’ capacity for residual non-hazardous waste.

## Capacity Summary

### Intermediate Site Capacity

4.36 Table 7 shows a summary of operating capacity of the different type of facilities investigated. In 2022, capacity for managing waste at intermediate sites in Medway totalled c708,500tpa.

**Table 7: Intermediate Waste Management Capacity in Medway**

Capacity Type	Assessed capacity		
	Non-inert waste		Inert waste
	Recycling	Transfer (without recycling)	Recycling
Other Recycling (Table 1)	512,732	-	-
Organic Waste Treatment <sup>21</sup> (Para 1.40.)	31,987	-	-
HWRC Recycling (Table 2)	40,344	-	-
Recycled Aggregate (Table 4)	-	-	99,282
Waste Transfer (Table 5)	-	24,000	-
<b>Total</b>	<b>585,063</b>	<b>24,000</b>	<b>99,282</b>
	<b>708,346</b>		

### Final Fate Capacity

4.37 Table 8 shows a summary of final fate capacity in Medway.

**Table 8: Remaining Final Fate Waste Management Capacity in Medway (tonnes)**

Capacity Type	Inert waste Recovery (restoration)	Non-inert
Inert Waste Landfill	2,881,200	-
'Other Recovery'	-	391,760
<b>Total</b>	<b>2,881,200</b>	<b>391,760</b>

<sup>21</sup> Site classed as intermediate because of the c11,000 tonnes of waste that went to the site in 2022, c9,500 tonnes left the site for further management.

## 5. Assessing the Waste Management Capacity Gap in Medway

### Net Self Sufficiency

5.1 Having established available capacity within the Plan area, this is then compared with the projected capacity requirements determined in the waste stream specific reports to ascertain if there is likely to be any waste management capacity gap (or shortfall) in future. This assessment takes account of the strategic objective of net-self-sufficiency, as set out in the SEWPAG Statement of Common Ground<sup>22</sup>, to which Medway Council is a signatory. Relevant sections of the Statement of Common Ground are as follows:

*2.1 **The Parties agree** that they will plan for net self-sufficiency which assumes that within each waste local plan area the planning authority or authorities will plan for the management of an amount of waste which is equivalent to the amount arising in that plan area. For the avoidance of doubt, **the Parties agree** that they will plan on the basis that no provision has to be made in their waste local plans to meet the needs of any other waste local plan area which are basing their waste policies on achieving the principle of net self-sufficiency.*

*2.2 **The Parties accept** that when using this principle to test policy, it may not be possible to meet this requirement for all waste streams, particularly where a specialist facility is required to manage specialist waste streams such as hazardous waste.*

*2.3 **The Parties agree** that they will therefore prepare plans which provide for the development of facilities that will manage waste produced within, and beyond, their areas based on net self-sufficiency and in accordance with the waste hierarchy.*

*2.4 **The Parties recognise that** there may be cases where, despite assessing reasonable options, some waste will not be planned to be managed within a waste plan area because of difficulty in delivering sufficient recovery or disposal capacity (E.g. Due to certain designations e.g. Green Belt, AoNB, National Park (see sections below)). **The Parties agree** that provision for unmet requirements from other authority areas may be included in a waste local plan but any provision for facilities to accommodate waste from other authorities that cannot or do not intend to achieve net self-sufficiency will be a matter for discussion and agreement between authorities and is outside the terms of this SCG.*

*2.5 **The Parties note** that, despite assessing reasonable options, there may be some kinds of waste requiring specialist treatment that cannot be managed within their own plan area, either in the short term or within the relevant plan period. These may include hazardous wastes and radioactive wastes. Where provision for the management of these wastes will be planned for in a different waste planning authority area, this will need to be considered between the relevant authorities. **The Parties agree** that provision for some kinds of wastes, including hazardous and radioactive waste, from other authority areas may be included in a waste local plan but that any provision for facilities to accommodate this waste from other*

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<sup>22</sup> Statement of Common Ground between Waste Planning Authority members of the South East Waste Planning Advisory Group Concerning Strategic Policies for Waste Management SEWPAG March 2020



*authorities that cannot or do not intend to achieve net self-sufficiency will be a matter for discussion and agreement between authorities and is outside the terms of this SCG.*

- 5.2 To be consistent with the SEWPAG SCG, Medway Council needs to plan for waste with the intention of providing sufficient capacity to manage the tonnage of waste equivalent to that predicted to arise within the Plan area over the Plan period. This does not mean that every tonne of waste produced in the Plan area ought to be managed within that Plan area, rather that, overall, the capacity should at least match the quantity of waste arising in Medway that requires management subject to certain exceptions where matters can be agreed between individual authorities.
- 5.3 It should be noted that while the assessment of need has been conducted on a waste stream-specific basis within each report, the assessment of capacity cannot be conducted in such a precise way since a facility may manage waste from a number of different waste streams. For example, sites receiving CDEW may also receive C&I waste and LACW for transfer. This needs to be taken into account when correlating the identified needs with the existing available capacity to identify any projected capacity shortfall.

### Waste Management Requirements

- 5.4 To assess the requirements for future waste management the forecast quantities that will need to be managed by certain methods to achieve certain targets need to be derived. The proposed waste management targets, generated in the background waste stream specific assessments, are presented together in Table 9 below.

**Table 9: Proposed Management Targets (assuming the inert /non-inert split remains at 86%vs14%)**

		Actuals	Targets at Plan milestone years			
		2022	2023	2028	2035	2041
Recycling/Organic Waste Treatment	LACW	46%	55%	60%	65%	70%
	C&I	48%	50%	60%	65%	70%
	CDEW	13%	13%	13%	13%	13%
Residual waste Other Recovery	LACW	53%	40%	38%	34%	29%
	C&I	20%	20%	30%	25%	28%
Residual waste Non-Inert Landfill	LACW	1%	5%	2%	<1%	<1%
	C&I	32%	30%	10%	5%	2%
	CDEW	>1%	1%	1%	1%	1%
Aggregate recycling/ Recovery to Land and Recovery in Landfill	Inert CDE	86%	>86% <sup>23</sup>			

<sup>23</sup> It is assumed that 100% of inert waste will be recovered through some management method according to its actual composition.

5.5 The above targets result in the management requirements for waste forecast to be produced in Medway set out in Table 10. The progression to the target milestones is compared with the baseline value for 2022.

**Table 10: Forecast Waste Management Requirements in Medway at Plan Milestone years**

		Measured Baseline (Actuals)	Forecast Waste Management Requirements (Tonnes at Plan Milestone)					Peak or Cumulative Capacity Requirement (landfill - underlined) (tonnes)
			2022	2023	2028	2035	2041	
Recycling/Organic Waste Treatment	LACW	60,681	72,613	80,335	88,729	97,124	97,124	
	C&I	68,036	70,836	87,149	97,766	108,485	108,485	
	CDEW	18,636	18,636	18,636	18,636	18,636	<b>18,636</b>	
	Total	147,353	<b>162,085</b>	<b>186,120</b>	<b>205,131</b>	<b>224,245</b>	<b>224,245</b>	
Residual waste Other Recovery	LACW	69,284	52,809	50,879	46,412	40,237	52,809	
	C&I	27,916	28,334	43,575	37,602	43,394	43,575	
	Total	97,200	<b>81,143</b>	<b>94,454</b>	<b>84,014</b>	<b>83,631</b>	<u>24</u>	
Residual waste Non-Inert Landfill	LACW	1,685	6,601	2,678	1,365	1,387	<u>49,600</u>	
	C&I	45,015	42,501	14,525	7,520	3,100	<u>231,881</u>	
	CDEW	1,787	1,787	1,787	1,787	1,787	<b>33,953</b>	
	Total	48,487	<b>50,889</b>	<b>18,990</b>	<b>10,672</b>	<b>6,274</b>	<b>357,936</b>	
Aggregate recycling/ Recovery to Land and Recovery in Landfill	Inert CDE	131,855	131.855				<u>25</u>	

5.6 How the waste management capacity requirements identified in Table 10 above might be met is discussed below.

<sup>24</sup> Total not given as peak requirements each waste stream occur in different milestone years.

<sup>25</sup> No peak value included as combination of recycling capacity and permanent deposit capacity.

**Recycling & Composting Waste Management (Non-inert waste)**

- 5.7 Recycling and organic waste treatment (aka composting) have been taken to sit at the same tier of the waste hierarchy, and may therefore be considered interchangeable in terms of the movement of waste up the hierarchy. Therefore, combined targets are proposed.
- 5.8 When the total assessed management capacity for recycling and composting of c585,000 tpa shown in Table 7 is compared with the estimated combined recycling and composting requirement as shown in Table 10, it can be concluded that sufficient capacity exists to meet the recycling requirement through the whole Plan period as shown in Table 11.

**Table 11: Medway Waste Recycling/Composting Capacity Requirement at Plan Milestone years**
*Source: Tables 7 & 10*

	Tonnes at Plan Milestone				Peak Requirement (tonnes)
	2023	2028	2035	2041	
Recycling /Composting Requirement	162,085	186,120	205,131	224,245	224,245
Plan Area Capacity	585,063	585,063	585,063	585,063	
Shortfall/'Surplus'	<b>+422,978</b>	<b>+398,943</b>	<b>+379,932</b>	<b>+360,819</b>	

**Non-Inert Residual Waste Management**
***Medway Non-Inert Residual Waste Landfill Capacity***

- 5.9 While there is no obligation in national planning policy for Medway to achieve net self-sufficiency for non-inert waste management throughout the Plan period<sup>26</sup>, the management of mixed municipal waste by disposal or recovery is subject to the proximity principle that is set out in the Waste Framework Directive. The proximity principle encourages each WPA to plan for the management of mixed municipal waste via disposal and energy recovery on a more localised basis<sup>27</sup>.
- 5.10 There are no non-inert waste landfills in Medway, therefore a cumulative non-inert waste landfill capacity gap (shortfall) of c358,000 tonnes (shown in Table 10) is predicted by the end of 2041.

<sup>26</sup> While the SEWPAG SoC encourages signatories to seek to achieve net self sufficiency, it also acknowledges there may be local circumstances that prevent this being achieved.

<sup>27</sup> Waste Management Plan for England (DEFRA, January 2021)

**Medway Non-Inert Residual Waste ‘Other Recovery’ Capacity**

5.11 When the total assessed management capacity for ‘other recovery’ of c392,000 tpa shown in Table 8 is compared with the estimated combined ‘other recovery’ requirement as shown in Table 10, it can be concluded that sufficient capacity exists to meet the ‘other recovery’ requirement through the whole Plan period as shown in Table 12. Note this is not including the capacity that may become available should the Medway One Energy Centre be built out.

**Table 12: Medway Waste ‘Other Recovery’ Capacity at Plan Milestone years**

Source: Table 8 and 10

	Tonnes at Plan Milestone				Peak Requirement (tonnes)
	2023	2028	2035	2041	
Other Recovery	81,143	94,454	84,014	83,631	94,454
Plan Area Capacity	391,760	391,760	391,760	391,760	
Shortfall/‘Surplus’	+310,617	+297,306	+307,746	+308,129	

**Inert Waste Management**

5.12 Whilst Medway Council has made no specific commitment to achieving net-self-sufficiency for the management of inert waste, applying the objective is a useful way of establishing the extent to which the provision of capacity may be sufficient.

5.13 Inert waste can be managed through two principal routes depending on its nature/composition:

- Recycled to aggregate or soil; or
- deposited for beneficial purposes on land (backfilling by inert landfill and recovery to land).

5.14 Inert waste is also used for the restoration of non-inert landfills which is considered to be a beneficial use, and hence a ‘recovery’ operation rather than disposal to landfill. The peak annual quantity of inert waste requiring management through recovery of one form or another is c132,000t, as shown in Table 10.

5.15 Discussion under Table 4 identifies three sites within Medway reported as producing recycled aggregate. These sites have combined capacity of c99,500tpa. This is less than the combined requirement of c132,000tpa. However, this does not take account of capacity at facilities that manage inert waste through permanent deposit to land.

5.16 Medway has several consented inert waste landfills identified in Table 6. At the time of writing the assessed remaining capacity equated to c2,881,000 tonnes of inert waste. Therefore, total management capacity is estimated to be c2,980,500 tonnes (c99,500tpa RAF and c2,881,000 inert landfill) for Medway’s inert waste arisings at 2022. Table 13 shows how the deduction of the projected inert waste requiring management results in the predicted depletion of inert waste landfill void in Medway. The depletion profile accounts for the recycled aggregate sites as well as the capacity offered by the recovery to land site.

**Table 13: Predicted Inert Waste Management Capacity in Medway (tonnes)**

Year	Annual Inert Waste Management Requirement	Recycled Aggregate Facility Capacity	Remaining Capacity Requirement after Aggregate Recycling	Remaining Landfill	Surplus/ Shortfall
Starting capacity		99,282		2,881,200	
2023	131,855	99,282	14,926	+2,848,627	+2,848,627
2024	131,855	99,282	14,926	+2,816,055	+2,816,055
2025	131,855	99,282	14,926	+2,783,482	+2,783,482
2026	131,855	99,282	14,926	+2,750,910	+2,750,910
2027	131,855	99,282	14,926	+2,718,337	+2,718,337
2028	131,855	99,282	14,926	+2,685,765	+2,685,765
2029	131,855	99,282	14,926	+2,653,192	+2,653,192
2030	131,855	99,282	14,926	+2,620,620	+2,620,620
2031	131,855	99,282	14,926	+2,588,047	+2,588,047
2032	131,855	99,282	14,926	+2,555,475	+2,555,475
2033	131,855	99,282	14,926	+2,522,902	+2,522,902
2034	131,855	99,282	14,926	+2,490,329	+2,490,329
2035	131,855	99,282	14,926	+2,457,757	+2,457,757
2036	131,855	99,282	14,926	+2,425,184	+2,425,184
2037	131,855	99,282	14,926	+2,392,612	+2,392,612
2038	131,855	99,282	14,926	+2,360,039	+2,360,039
2039	131,855	99,282	14,926	+2,327,467	+2,327,467
2040	131,855	99,282	14,926	+2,294,894	+2,294,894
2041	131,855	99,282	14,926	+2,262,322	+2,262,322

5.17 Table 13 shows that there is sufficient inert waste management capacity in the Plan area to the end of 2041, and when accounting for Medway’s inert waste requirement alone there would be a surplus of inert waste management capacity at the end of 2041 of c2.3M tonnes.

### Hazardous Waste Management

5.18 The background evidence report found that the combined hazardous waste management capacity offered by facilities within Medway equates to at least c52,500 tonnes per annum, and this substantially exceeds the peak projected overall annual arising of hazardous waste over the Plan period of c33,000 tonnes.

## Capacity Summary

5.19 The findings from the preceding discussion on potential future waste management capacity gaps in Medway are summarised in Table 14 below.

**Table 14: Medway combined Capacity Assessment & Annual Capacity Gap Analysis**

Capacity Type	Waste Management Capacity Gap (Tonnes at Plan Milestones)			
	2023	2028	2035	2041
Recycling & Composting (Table 11)	+422,978	+398,943	+379,932	+360,819
Non-inert Landfill	-50,889	-209,638	-309,297	-357,937
Other Recovery (Table 12)	+310,617	+297,306	+307,746	+308,129
Inert Waste Management Capacity (Table 13)	+2,848,627	+2,685,765	+2,457,757	+2,262,322

5.20 Table 14 shows that:

- There is sufficient capacity to meet the recycling/composting requirement through to the end of 2041;
- there is a predicted shortfall in non-inert landfill throughout the entire Plan period. This results in a cumulative shortfall in residual waste management capacity of c358,000 tonnes to the end of 2041;
- there is a sufficient capacity to meet the 'other recovery' capacity throughout the entire period; and
- there is a sufficient inert waste recovery capacity through to the end of 2041.

5.21 Analysis of sub regional non-inert residual waste landfill capacity has been undertaken given there is a predicted shortfall.

## 6. Availability of Sub-Regional Non-inert Waste Landfill Capacity

6.1 Given a projected shortfall in Non-inert Waste Landfill capacity within the Plan area, consideration should be given to the relevant national policy expectation in National Planning Policy for Waste which states that:

3. *In preparing Local Plans, waste planning authorities should: ...*

- *consider the need for additional waste management capacity of more than local significance and reflect any requirement for waste management facilities identified nationally;*
- *take into account any need for waste management, including for disposal of the residues from treated wastes, arising in more than one waste planning authority area but where only a limited number of facilities would be required;*
- *work collaboratively in groups with other waste planning authorities, and in two-tier areas with district authorities, through the statutory duty to cooperate, to provide a suitable network of facilities to deliver sustainable waste management;*
- *consider the extent to which the capacity of existing operational facilities would satisfy any identified need.*

6.2 In addition, the SEWPAG Statement of Common Ground states:

*2.31 When planning for non-hazardous landfill, the Parties agree that such facilities are regional in nature and will therefore receive waste from beyond the area within which they are located. The Parties agree that they will therefore consider the ability of their own area to accommodate new non-hazardous landfill capacity as well as the ability of other areas to meet their own needs over the period being planned for (in line with the agreement in paragraph 2.4).*

6.3 This is intended to ensure that over-provision of capacity at the bottom of the waste hierarchy does not occur and that an optimal distribution of capacity is established "to provide a suitable network of facilities to deliver sustainable waste management" that may extend beyond a specific Plan area. This is particularly the case when facilities provided have substantially greater capacity than required to meet the needs of a Plan area in which they are located.

### Defining the sub-Region to Medway

6.4 While waste produced in Medway may travel considerable distances, for the purposes of this assessment, the Plan areas that are contiguous to Medway have been considered as forming a sub-region to which waste produced in Medway might be expected to travel in the first instance. These areas are listed below:

1. Kent
2. Thurrock; and
3. Essex & Southend on Sea.

**Non-inert Waste Landfill Capacity**

- 6.5 The capacity analysis presented in Table 14 identified a non-inert waste landfill requirement, which results in a cumulative shortfall in residual waste management capacity of c358,000 tonnes to the end of 2041.
- 6.6 Given the more limited availability of non-inert landfill capacity in the Medway sub-region, consideration has also been given to capacity that may be available within a wider catchment of Plan areas contiguous to the identified sub-region too. This extends the area of interest to include the following Plan areas:
- East Sussex & Brighton & Hove
  - Surrey
  - South London
  - South East London
  - East London
  - North London
  - Hertfordshire
  - Cambridgeshire; and
  - Suffolk.
- 6.7 Using landfill capacity data collected by the Environment Agency, Table 15 shows the remaining permitted landfill capacity at the end of 2022 for non-inert landfill in the sub-region to Medway and the wider South East. Of the areas listed above, eight had non-hazardous landfill capacity available in 2022, as shown in Table 15.

**Table 15: Permitted Non-Inert Landfill Void, Medway sub-region and wider catchment, 2022**  
*(in million cubic metres)<sup>28</sup>*

Location	Plan Area	Permitted Void at end of 2022 (Mm3)
Medway sub region	Kent	1.24
	Essex	4.07
	Thurrock	0.73
	Sub Total	6.04
Wider catchment	Cambridgeshire	14.0
	East London	1.34
	South London	0.50
	Suffolk	2.87
	Surrey	1.92
	Sub Total	20.63
	<b>Grand Total</b>	<b>26.67</b>

<sup>28</sup> The Environment Agency data only accounts for capacity that has received an environmental permit. It may be that void has been consented by planning authorities that has yet to be permitted by the Agency, for example void to be created as a result of mineral extraction. Therefore, the above values may represent an underestimate of non-inert waste landfill capacity available in the sub region.



- 6.8 Table 15 shows that there is non-hazardous landfill capacity available within the Medway sub region and wider catchment that could in theory accept Medway's non-inert residual waste management shortfall. The predicted export of waste from Medway to non-inert landfill is consistent with historic patterns of waste management whereby c26,000 tonnes was managed in Thurrock and c40,000 tonnes was managed in East London in 2021.
- 6.9 The availability of the landfill void beyond Medway to accommodate its ongoing requirements would need to be confirmed with the host WPAs through direct engagement.
- 6.10 Given the expectation that non-inert waste will continue to be diverted from landfill driven by the landfill tax escalator and other initiatives intended to achieve virtually no biodegradable waste to landfill by 2028, it may be assumed that the rate of depletion of void in the remaining consented landfills will reduce dramatically. This could serve to conserve remaining void capacity so that Medway's predicted cumulative non-inert landfill capacity requirement might be accommodated within landfills outside the Plan area.

## **7. Recommendations**

- 7.1 In light of the above findings, it is recommended that the following Waste Planning Authorities are contacted to verify the availability of waste management capacity that may be used to manage residual waste arising in Medway that requires landfill:
- WPAs within the identified Medway sub-region i.e. Kent County Council, Thurrock Council and Essex County Council; and
  - WPAs hosting landfill capacity outside the Medway sub-region identified in Table 15.
- 7.2 Such contact should establish the available capacity of facilities throughout the Plan period and whether there is any planning impediment, such as a planning condition restricting the waste supply catchment, that would prevent waste from Medway being managed at that facility.

Medway Local Plan Waste Evidence Base

**8. Appendix 1: Intermediate non-hazardous Site Throughput over 5 years reported through WDI tonnes (peak year identified by green cell)**

Site Name	Operator	Capacity counted as	Site Category	2018	2019	2020	2021	2022	Peak Input	Peak Input +15%
Darnet Yard	Parkes Utilities Surfacing Ltd	Recycling	Treatment	-	-	-	-	8,149	8,149	9,371
Pelican Reach (Plot L)	Viridor Polymer Recycling Ltd			75,180	84,959	54,768	88,335	89,102	89,102	102,467
Units 127 and 190 Kingsnorth Industrial Estate	Syntech Biofuel Ltd			-	-	-	-	317	317	364
Berth 6, Basin 3, Chatham Dockyard	P & D Material Recovery Ltd			-	-	22,477	40,576	77,722	77,722	89,380
Building 63, Chatham Docks	Chatham Freight Station Ltd			7,001	13,357	22,180	29,371	33,686	33,686	38,739
Medway WTS	Veolia ES (UK) Ltd		132,833	132,641	137,653	137,860	120,241	137,860	158,539	
Chatham Docks, Gillingham Gate	Mobile Compactor Services Ltd		1,160	1,256	1,581	1,322	1,421	1,581	1,818	
Unit B, Whitewall Road	European Metal Recycling Ltd		6,230	763	5,115	9,211	8,144	9,211	10,593	
Kingsnorth Works, Kingsnorth Industrial Estate, Hoo	Composting Facilities Services Ltd	Organic Waste treatment	Treatment	7,664	12,534	27,815	13,394	10,874	27,815	31,987
Capstone HWRC	Medway Norse Ltd	HWRC	Transfer	9,840	9,112	5,923	6,093	5,451	9,840	11,316
Cuxton HWRC				12,198	10,559	3,265	6,402	5,945	12,198	14,028
Hoath Way HWRC				8,036	7,544	5,383	5,040	5,084	8,036	9,241
Isle Of Grain Stone Terminal	Aggregate Industries UK Ltd	Recycled Aggregate	Treatment	50	1,187	8,010	-	4,096	8,010	9,211
Unit 5 Temple Boat Yard	Saward Tipping Services Ltd			-	9,146	20,896	27,056	43,540	43,540	50,071
Medway Recycling Centre, Malmaynes Hall Farm	OCL Regeneration Ltd		Transfer	-	-	6,265	0	0	6,265	7,205
Rochester Clinical Waste Treatment Facility	Tradebe Healthcare National Ltd	Transfer	Transfer	11,594	12,966	13,862	6,424	13,854	13,862	15,942